

CLIMATOLOGICAL DATA FOR NOVEMBER, 1912.

DISTRICT No. 5—UPPER MISSISSIPPI VALLEY.

GEO. M. CHAPPEL, District Editor.

GENERAL SUMMARY.

November concluded over much of the Upper Mississippi Valley one of the finest autumnal seasons in years. Like its immediate predecessor, the month was mild, dry, sunshiny, and free from storms of severity. The weather was in marked contrast to the wintry, inclement November a year ago. At Des Moines, Iowa, the month was the brightest of any in the present year. Almost ideal conditions for agriculturists prevailed, the weather being especially favorable for corn gathering, plowing, thrashing, and other operations. In the North Dakota area, where the adverse weather of September and October greatly retarded activities, November's fair skies enabled the delayed work to be brought almost up to date. A series of severe local storms moved across Illinois on the afternoon of the 12th. Some details of these appear under another heading.

The following table presents in condensed form the leading features of climatological interest for the various parts of the district:

Parts of States within district 5.	Temperature.				Precipitation.					
	Mean.	Depart.	Highest.	Lowest.	Average.	Depart.	Greatest total.	Least total.	Average snow-fall.	Average number of days with precipitation.
North Dakota....	30.3	+4.9	70	1	0.08	-0.51	0.70	0.00	0.8	1
Minnesota....	34.0	+5.8	75	-1	0.36	-0.73	1.97	0.00	1.2	2
South Dakota....	36.0	+5.6	73	10	0.16	-0.46	0.28	0.04	1.0	1
Wisconsin....	35.1	+3.1	69	-3	0.81	-0.71	2.82	0.05	1.7	3
Iowa.....	40.0	+4.5	75	8	1.08	-0.37	2.38	0.10	0.1	2
Missouri....	44.4	+2.4	76	15	1.91	-0.33	2.45	0.11	T.	4
Indiana....	41.1	+0.9	72	18	3.55	+0.83	4.06	3.00	1.0	8
Illinois....	42.4	+2.3	77	8	1.88	-0.64	4.00	0.62	0.1	4

TEMPERATURE.

The temperature averaged higher than usual in all parts of the district, the average daily excess of the mean temperature ranging from less than a degree in the Indiana area to almost 8° in the South Dakota area and surrounding North Dakota and Minnesota territory. In the latter section the month was one of the three or four mildest Novembers in the last 40 years. The mean temperature for the district was 37.4°, or 3.9° higher than the normal. Cairo Ill., with an average temperature of 48.5°, was the warmest station, and Pembina, N. Dak., with 24.4°, the coldest.

Over those parts of the district where the excess of temperature was greatest, only two or three days averaged colder than usual. On the 1st the coldest weather of the season to date was approaching from the northwest, and on the morning of the 2d a number of stations reported

the lowest temperatures of the month. The most important cold spell, however, culminated on Thanksgiving morning (28th), when the first zero weather of the season in this district occurred. Three stations in northern Wisconsin reported 3° below zero, that being the lowest recorded temperature of the month. The highest temperatures were experienced on or about the 10th, but at several northern points they occurred on or about the 19th. Monthly maximum temperatures of 70° or higher were reported from the warmer parts of the district, the highest being 88°, at Sublett, Mo., on the 7th. That was the only station with a temperature above 80°.

PRECIPITATION.

Over almost 90 per cent of the district the precipitation was deficient. Most of the small number of stations having an excess are in the southern half. At 3 stations (2 in North Dakota and 1 in Minnesota) no precipitation whatever occurred, while only traces were reported from 10 stations in those States. The heaviest falls occurred at points in Illinois and Indiana, Laporte in the latter State having the greatest amount, 4.06 inches.

The average precipitation for all stations was 1.01 inches, or 0.54 inch less than the normal. By far the greater part of it occurred during the first half of the month. The precipitation of the latter half consisted mostly of snow flurries in the Northern States, from the 23d to 27th, inclusive. On the 1st, 5th-6th, and 12th-13th copious to heavy rains occurred in the southern part of the district. The last named was the most general storm. The average number of rainy days was 3.

RIVERS.

At the close of the month the Mississippi River in the Davenport (Iowa) district was from 0.5 to 1 foot lower than at the close of October. Good boating stages still prevailed, but navigation had been suspended till next spring. In the Dubuque (Iowa) district the streams remained open, with thin ice running in the more northerly sections. In Minnesota the larger lakes were still unfrozen.

MISCELLANEOUS.

The sunshine of the month was much above the normal in all parts of the district. At Des Moines, Iowa, the percentage of the possible was 81. The average number of clear days was 15; partly cloudy, 8; cloudy, 7. Northwesterly winds prevailed, but at many stations the direction was southwesterly. The highest velocity reported was at the rate of 40 miles an hour from the northeast, on the 12th, at Madison, Wis., and from the south, on the 30th, at St. Paul, Minn.

TABLE 1.—Climatological data for November, 1912. District No. 5, Upper Mississippi Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years	Temperature, in degrees Fahrenheit.							Precipitation, in inches.							Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal:			Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal:			Greatest in 24 hours.	Total snowfall, unmeasured.	Number of rainy days, 0.01 inch or more.					
					Highest.	Date.	Lowest.						Total.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.							
<i>North Dakota.</i>																							
Amenia.	Cass.	954	15	33.2	+ 7.2	64	9	12	2†	47	0.02	- 0.66	0.02	0.2	1	23	3	4	nw.	C. E. Wood.			
Bottineau.	Bottineau.	1,638	17	28.0	+ 5.6	50	18	7	24	30	0.42	- 0.19	0.22	4	8	8	14	nw.	W. M. Mills.				
Bowbells.	Burke.	1,958	31.9	60	9	8	27†	39	39	0.00	0.00	0	0	20	1	9	1	.....	G. H. Phelps.			
Cando.	Towner.	1,488	11	26.9	- 0.6	5* ^a	20	5*	2†	29*	0.03	- 0.52	0.03	0.3	1	1	25	2	sw.	E. T. Judd.			
Crosby.	Divide.	6	32.8	62	9	11	26	32	31	0.11	0.11	1.0	1.0	3	1	25	3	.....	H. C. Kaschau.			
Devils Lake.	Ramsey.	1,482	7	26.9 ^a	+ 4.3	47*	19	8*	2	29	0.09	- 0.62	0.07	T.	3	1	16	4	sw.	U. S. Weather Bureau.			
Donnybrook.	Ward.	1,760	13	31.8	+ 2.4	55	18	8	1	31	0.10	- 0.64	0.10	1.0	1	1	16	6	nw.	C. J. DeVore.			
Dunseith.	Rolette.	15	28.6	+ 3.9	49	18	9*	2	29 ^a	0.06	- 0.20	0.04	0.4	2	16	6	8	.....	C. E. Goodsell.			
Edmore.	Ramsey.	1,524	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. M. Van Osdell.
Fessenden.	Wells.	1,610	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. T. Seymour.
Forman.	Sargent.	1,249	18	33.5	+ 7.3	69	10	6	24	40	0.10	- 0.42	0.10	1.0	1	15	4	11	nw.	A. Maltby.			
Grafton.	Walsh.	827	21	28.7	+ 7.1	47 ^a	6	12*	2†	31 ^a	0.08	- 0.71	0.04	0.5	2	2	.....	.....	.....	A. R. T. Wylie.
Granville.	McHenry.	1,504	6	27.0	.....	50	19	12	3†	32	0.01	0.01	0.2	1	20	4	6	w.	W. A. Christianson.			
Hannah.	Cavalier.	1,508	7	26.8 ^a	45 ^a	19	1	2	30 ^a	0.10	0.10	1.0	1.0	1	1	.....	.....	.....	J. Moffatt.	
Hansboro.	Towner.	4	28.8	51	18	2	27	25	0.07	0.04	1.0	2	18	5	7	.....	.....	.....	Geo. Dale.	
Hillsboro.	Traill.	901	7	32.9	56	18†	16	27	33	0.02	0.02	T.	1	11	11	8	.....	.....	F. E. Mayall.		
Lakota.	Nelson.	1,579	6	29.0	.....	52	19	8	2	32	0.07	0.04	1.7	3	8	18	4	sw.	C. R. Pettes.			
Langdon.	Cavalier.	1,615	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. Woolner.	
Larimore.	Grand Forks.	1,134	17	30.6	+ 5.8	55	19	12	2†	34	0.10	- 0.21	0.04	1.7	4	18	11	1	s.	J. M. Freeman.			
Lisbon.	Ransom.	1,091	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. S. Adams.	
McKinney.	Renville.	1,640	18	33.4	+ 10.5	58	19	10	23†	44	T.	- 0.64	T.	0	9	16	5	.....	N. P. Swenson.			
McLeod.	Ransom.	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.00	0	0	15	10	5	.....	.....	Martin Reinholz.	
Manfred.	Wells.	1,605	11	32.0	.....	55	19	9	27	33	0.20	0.10	2.0	2	14	9	7	.....	P. B. Anderson.		
Mayville.	Trail.	975	16	33.4	+ 6.7	58	19	11	26	39	0.02	- 0.71	0.02	1	16	3	11	.....	W. C. Gould.			
Milnor.	Sargent.	1,097	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. J. Edman.	
Minot.	Ward.	1,557	14	31.9	+ 0.5	54	17	11	24	30	0.05	- 0.68	0.05	0.5	1	20	4	6	.....	W. J. Ellison.		
Minto.	Walsh.	820	19	31.7	+ 7.8	52 ^a	19	13 ^b	29 ^b	0.07	- 0.54	0.07	0.7	1	11	5	14	.....	S. S. Marsh.			
Oriska.	Barnes.	1,270	7	32.2	.....	60	19	5	24†	40	T.	.....	T.	0	12	14	4	sw.	J. J. Taylor.		
Parl River.	Walsh.	998	9	30.7	.....	54	19	15	27	30	0.01	0.01	T.	1	9	7	14	.....	P. J. Prochaska.		
Pembina.	Pembina.	789	14	24.4	- 1.4	44	10	4	30	24	0.70	- 0.29	0.20	3.0	6	7	12	11	sw.	C. W. Shumaker.			
Power.	Richland.	1,020	20	33.2	+ 7.3	64	10	9	24	42	0.03	- 0.55	0.03	0.5	3	16	6	8	w.	J. A. Power.			
Towner.	McHenry.	4	28.6	44	18	7	2	24	0.10	0.10	1.0	1.0	1	7	12	11	1	.....	B. Bagley.			
University.	Grand Forks.	830	20	31.5	+ 4.9	57	19	15	27	36	0.10	- 0.66	0.04	1.0	4	10	6	14	.....	U. S. Weather Bureau.		
Wahpeton.	Richland.	962	20	29.1	+ 0.9	70	10	10	2†	48	T.	- 0.53	T.	0	15	6	9	.....	Fred E. Smith.			
Walhalla.	Pembina.	966	8	31.8	.....	56	5	5	2	40	T.	.....	T.	0	19	11	0	s.	Ivanhoe Lee.		
Westhope.	Bottineau.	1,260	6	30.5	.....	54	18	7	24	37	0.07	- 0.36	0.05	0.7	2	14	12	4	w.	W. A. Meddaugh.		
Willow City.	do.	1,471	19	29.0	+ 8.3	49 ^a	18	8*	24	26 ^a	0.10	- 0.36	0.10	1.0	1	.....	.....	.....	M. A. Ostby.	
<i>Minnesota.</i>																							
Albert Lea.	Freeborn.	1,229	21	37.2	+ 5.9	64	10	16	2†	33	1.10	- 0.40	1.10	T.	1	9	19	2	nw.	Edward Carey.			
Angus.	Polk.	870	10	30.2	+ 4.8	54	18	13	26	36	0.12	0.05	1.2	3	15	9	6	nw.	John Nadvornik.				
Bagley.	Clearwater.	6	30.5	.....	.....	58	10	9	28	33	0.42	0.20	4.0	5	13	13	4	sw.	Jens Nelson.		
Baudette.	Beltrami.	1,084	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Gjelhaug.	
Beardsley.	Bigstone.	1,090	16	36.4	+ 7.3	73	10	12	2	44	0.05	- 0.67	0.05	1.2	1	15	11	4	nw.	G. L. Fitzgerald.			
Bird Island.	Beltrami.	1,400	9	36.4	.....	66	10	11	28	43	T.	- 0.87	T.	0	6	13	11	.....	C. W. Warfield.		
Brainerd.	Renville.	1,039	22	35.2	+ 5.3	66	10	11	28	43	T.	- 0.87	T.	0	6	13	11	.....	Dr. F. L. Puffer.			
Caledonia.	Crow Wing.	1,215	19	33.4	.....	65	10	15	28	37	0.21	0.12	2.1	2	17	6	7	.....	Theodore Miller.		
Campbell.	Houston.	1,179	19	37.0	+ 4.5	61	10†	11	28	36	0.50	- 1.21	0.37	1.2	5	12	7	11	nw.	W. D. Belden.			
Cass Lake.	Wilkin.	954	6	33.4	.....	62	10†	10	26	40	0.22	0.20	2.0	0.20	0	21	8	1	.....	J. T. Neiss.	
Collegeville.	Cass.	1,300	5	.....	.....	.....	.....	.....	.....	.....	1.57	1.06	4.5	3	1	16	6	6	.....	C. W. Burns.
Crookston.	Stearns.	1,282	19	35.6	+ 5.0	60	10	16	2†	29	0.10	- 0.77	0.08	1.5	2	15	9	6	.....	F. Tembreull.		
Detroit.	Polk.	863	23	31.8	+ 6.9	55	18	15	27	37	0.08	- 0.65	0.05	0.8	2	9	5	16	s.	A. G. Anderson.			
Ely.	Becker.	1,364	16	31.2	+ 5.6	67 ^a	19	8*	24	36 ^b	0.20	- 0.55	0.17	5.0	2	19	4	7	sw.	G. W. Peoples.			
Fairmont.	St. Louis.	1	32.5	.....	.....	55	10	4	28	32	0.19	- 0.91	0.09	3.3	3	7	10	13	.....	Iver Wisted.
Faribault.	Martin.	1,240	25	37.9	+ 7.0	65	10	13	27	31	0.40	- 0.91	0.40	T.	1	17	10	3	.....	W. F. Wherland.		
Farmington.	Rice.	1,003	14	36.2	+ 5.8	67	10	9	28	38	0.48	- 0.83	0.48	T.	1	13	7	10	s.	A. B. Moulton.			
Fergus Falls.	Dakota.	902	24	36.2	+ 5.8	67	10	9	28	38	0.48	- 0.54	0.22	2.5	3	11	15	4	nw.	E. D. Akin.			
Fort Ripley.	Ottertail.	1,210	20	33.6	+ 6.0	60	10	12	26	29	0.28	- 0.54	0.22	1.0	3	22	0	8	s.	C. E. Kisslinger.			
Gosse.	Crow Wing.	1,136	30.2	.....	.....	63	10	- 1	28	44	0.25	- 0.49	0.09	1.0	3	22	0	8	s.	J. J. Tucker.	
Fosston.	Polk.	1,239	2	30.8	.....	60	10	8	27	31	0.32	0.11	1.7	5	13	12	5	.....	O. N. Hem.		
Glencoe.	McLeod.	1,000	15	36.8	+ 5.4	63	10	10	28	34	0.23	- 0.59	0.07	0.8	1	18	1	11	.....	L. V. Koos.		
Grand Meadow.	Mower.	1,338	24	36.4	+ 6.1	62	10	9	28	33	1.97	+ 0.60	1.90	T.	2	11	14	5	.....	C. F. Greening.		
Gull Lake Dam.	Cass.	1,215	1	33.3	.....	63	10	10	28	34	0.23	- 0.53	0.15	3.0	3	17	7	6	.....	U. S. Engineer Corps.	
Hallow.	Kittson.	815	13	30.8	+ 5.7	52	18	14	29	26	0.07	- 0.59	0.07	0.8	1	18	1	11	.....	D. A. Robertson.		
Halstad.	Norman.	870																					

TABLE 1.—Climatological data for November, 1912. District No. 5—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.						Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of overcast days.	Prevailing wind direction.			
<i>Minnesota—Continued.</i>																						
St. Charles.	Winona.	850	21	35.2	+ 4.1	63*	10	6*	28	34*	1.00	- 0.26	1.00	T.	1	14	5	11	se.	S. W. Gleason.		
St. Cloud.	Sherburne.	1,020	35	37.0	+ 6.1	60	10	13	28	33	0.08	- 1.09	0.01	0.1	1	22	5	3	s.	J. H. Capser.		
St. Paul.	Ramsey.	940	41	37.0	+ 6.1	60	10	13	28	33	0.08	- 1.22	0.04	0.7	4	10	14	6	nw.	U. S. Weather Bureau.		
St. Peter.	Nicollet.	825	17	37.6	+ 4.9	61	20	12	28	38	0.30	- 0.78	0.30	0	1	13	13	4	w.	State Hospital.		
Sandy Lake Dam.	Aitkin.	1,234	19	32.2	+ 5.3	60	10	1	28	35	0.16	- 1.06	0.16	1.8	1	11	12	7	w.	U. S. Engineer Corps.		
State Sanatorium.	Cass.	4	33.3	.....	.....	58	10	11	28	28	0.46	.....	0.18	2.2	4	17	4	9	s.	Dr. L. B. Ohli ger.
Stillwater.	Washington.	694	6	.....	.....	60	10†	8	28	31	0.07	.....	0.07	T.	0	14	1	15	nw.	Oscar Ostrom.
Taylors Falls.	Chisago.	759	5	35.8	.....	60	10†	8	28	31	0.07	.....	0.07	0.8	1	16	7	7	s.	Minneapolis Gen. Elec. Co.
Thief River Falls.	Pennington.	1,137	1	31.3	.....	52	19	15	2†	35	0.10	.....	0.10	1.0	1	16	1	13	s.	E. W. Lown.
Tracy.	Lyon.	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. D. Davis.
Warren.	Marshall.	859	21	31.3	.....	55	18	12	24	34	0.55	.....	0.50	0.5	2	11	19	0	w.	P. H. Holm.
Worraod.	Roseau.	1,069	2	29.1	.....	47	18†	10	27†	23	0.55	.....	0.50	0.5	2	20	2	8	w.	G. A. Sawyer.
Winnibigoshish.	Faribault.	1,100	14	38.0	+ 4.0	66	10	13	28	41	0.60	- 0.72	0.60	T.	1	17	10	3	sw.	H. H. Haight.		
Winnona.	Itasca.	1,300	24	33.6	+ 7.9	60	11	9	28	32	0.74	- 0.36	0.36	3.8	4	17	4	9	w.	U. S. Engineer Corps.		
Worthington.	Nobles.	1,593	17	35.5	+ 4.4	66	10	13	24	32	0.15	- 0.99	0.15	T.	1	18	6	6	sw.	P. C. Myers.		
Zumbrota.	Goodhue.	917	16	36.7	+ 5.1	66	10	7	28	37	1.35	.....	1.35	0.2	1	18	8	4	sw.	M. P. Mann.	
<i>South Dakota.</i>																				W. C. Rowell.		
Milbank.	Grant.	1,148	21	35.2	+ 5.6	73	10	10	26†	44	0.28	- 0.46	0.28	1.7	1	14	10	6	nw.	Miss Mary Patridge.		
Sisseton.	Roberts.	1,202	6	36.8	.....	68	9	15	24†	34	0.04	.....	0.04	0.4	1	23	0	7	nw.	George Gray.
<i>Wisconsin.</i>																						
Antigo.	Langlade.	1,489	18	33.2	+ 1.8	58	5	10	28†	30	0.90	.....	0.22	6.5	6	14	1	15	w.	Elton C. Larzelere.	
Baron.	Barron.	1,115	21	33.3	+ 3.8	56	10	4	28	33	0.10	- 1.28	0.10	1.0	1	13	13	4	sw.	Wm. A. Kent.		
Beloit.	Rock.	750	46	37.8	+ 0.9	69	11	16	28†	35	2.11	+ 0.20	0.01	1.0	4	13	0	17	nw.	Smith Observatory.		
Big St. Germain Dam.	Vilas.	1,590	2	31.8	.....	58	10†	5	28	36	0.23	.....	0.11	6.5	4	11	9	10	sw.	Fred Hessen.
Brookhead.	Green.	812	14	38.7	+ 0.8	69	11	15	28	34	1.93	+ 0.12	0.82	T.	3	12	12	6	nw.	Hector D. Kirkpatrick.		
Burnett.	Dodge.	880	8	37.3	.....	64	11	14	28	27	1.43	.....	0.05	1.0	3	7	11	12	sw.	Geo. W. Smith.
Cornell.	Chippewa.	993	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.41	T.	3	21	6	3	sw.	Brunet Falls Mfg. Co.
Cottage Grove.	Dane.	888	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.11	T.	3	19	6	7	sw.	John E. Mellish.
Darlington.	Lafayette.	867	6	37.8	.....	67	11	10	28	36	1.20	.....	0.70	T.	2	19	1	10	nw.	F. J. O'Neill.
Deerskin Dam.	Forest.	1,685	2	30.2	.....	56	20	4	28	42	0.41	.....	0.23	2.5	2	11	15	5	nw.	Wm. E. O'Neal.
Delavan.	Walworth.	920	21	38.0	+ 4.4	68	11	16	29	30	2.82	+ 0.97	1.70	1.0	4	10	7	13	sw.	Elwood S. Austin.		
Dodgeville.	Iowa.	1,220	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Thomas Gibbon.
Downing.	Dunn.	983	10	33.8	+ 3.5	56*	19	5*	28	39	0.40	- 0.93	0.30	T.	1	7*	2*	20*	w.	Eugene F. Stoddard.		
Eau Claire.	Eau Claire.	801	21	36.1	+ 4.0	62	10	28	37	32	0.72	- 0.95	0.70	0.1	3	9	12	9	w.	Robert D. Whitford.		
Glen Flora.	Rusk.	1,475	0	32.3	.....	59	10	3	28	36	0.30	.....	0.20	1.6	4	19	3	8	nw.	F. W. Oelschlaeger.
Grand Rapids.	Wood.	1,021	13	34.6	+ 1.9	64	11	8	28	33	1.12	- 0.56	0.95	1.2	5	10	13	7	sw.	Willis B. Raymond.		
Grantsburg.	Burnett.	1,095	21	32.6	+ 1.8	57	4†	2	28	37	0.15	- 1.29	0.15	1.5	1	15	6	9	nw.	Theodore Olsen.		
Hancock.	Waushara.	1,091	20	36.8	+ 3.8	64	11	10	28	34	0.75	- 0.65	0.60	T.	3	12	10	8	sw.	Frederick B. Hamilton.		
Hatfield.	Jackson.	973	18	34.1	+ 1.7	67	10	28	45	32	1.13	- 0.48	1.13	T.	1	7	14	9	sw.	Walter S. Woods.		
Hayward.	Sawyer.	1,107	21	31.8	+ 2.6	62	10	—	3	28	37	0.22	- 1.32	0.10	2.2	3	15	2	9	sw.	A. E. Johnson.	
Hillsboro.	Vernon.	1,000	21	35.0	+ 2.2	64	11	5	28	38	0.85	- 0.78	0.85	T.	1	16	9	5	sw.	Emil V. Wernick.		
Koepenick.	Langlade.	1,683	21	32.3	+ 0.9	62	10	6	28	34	2.10	+ 0.12	0.80	18.0	8	16	9	5	sw.	Edward S. Koepenick.		
Lac du Flambeau.	Vilas.	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. J. Lovett.
La Crosse.	La Crosse.	714	40	38.4	+ 4.6	65	11	13	28	30	0.90	- 0.62	0.82	0.1	2	10	4	16	s.	U. S. Weather Bureau.		
Lake Mills.	Jefferson.	897	21	38.6	+ 3.9	66	11	17	28	35	1.16	- 0.95	0.88	0.4	5	12	11	7	sw.	S. Newton Dexter Smith.		
Lancaster.	Grant.	1,070	21	39.0	+ 5.1	64	10†	21†	28	32	0.72	- 1.04	0.72	T.	1	1	13	16	sw.	Edward Pollock.		
Long Lake.	Oneida.	1,592	4	30.5	.....	59	10	—	3	28	40	0.45	.....	0.19	4.0	6	13	5	s.	Louis Frank.
Madison.	Dane.	974	43	38.6	+ 4.4	64	11	15	28	29	0.89	- 0.91	0.85	0.2	4	16	9	10	sw.	U. S. Weather Bureau.		
Marsfield.	Wood.	1,276	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agr. Exper. Station.
Mather.	Juneau.	962	8	33.8	.....	62	10†	7	28	37	0.50	.....	0.48	T.	2	15	3	12	w.	Frank Evans.
Mauiston.	.....	882	16	36.8	+ 2.1	63	11	14	28	31	0.95	- 0.69	0.85	T.	2	12	11	7	sw.	Eugene L. Hitchcock.	
Meadow Valley.	.....	974	21	36.2	+ 3.9	64	11	6	28	36	0.57	- 0.96	0.49	T.	2	7	18	5	sw.	Charles H. Johnson.	
Medford.	.....	1,420	23	33.4	+ 3.2	57	10	4	28	31	0.55	- 1.02	0.40	1.5	3	15	10	5	n.	Wm. Zeit.	
Merrill.	Taylor.	1,267	6	34.6	.....	58	11	4	28	34	0.78	.....	0.43	1.0	3	18	0	12	n.	Wm. T. Hunter.
Minoqua.	Lincoln.	1,267	23	33.4	+ 3.2	57	10	4	28	31	0.55	.....	0.43	1.0	3	15	10	5	sw.	Benjamin W. Applebee.	
Mondovi.	Buffalo.	738	4	36.2	.....	59	10	8	28	36	1.14	.....	0.62	1.6	9	16	8	6	nw.	Dr. Charles Hebard.
Mount Horeb.	Dane.	1,226	8	37.4	.....	66	11	9	28	30	1.43	.....	0.01	3.6	5	13	5	12	sw.	Wm. Hessler.
Muscosa.	Grant.	666	3	36.8	.....	65	11	7	28	39	0.82	.....	0.82	T.	1	20	1	9	sw.	Wm. Headlett.
Neillsville.	Clark.	996	22	34.6	+ 3.3	68*	5	10	28	40	0.95	- 0.79	0.95	T.	1	13	14	3	nw.	Franc A. R. Van Meter.		
New Richmond.	St. Croix.	990	7	35.0	.....	64	10	8	28	43	0.05	.....	0.05	T.	1	14	9	7	sw.	Charles W. Staples.
Osceola.	Polk.	806	21	35.6	+ 5.9	61	10	7	28	35	0.10	- 1.29	0.05	1.0	2	14	5	12	sw.	Flamebeau Paper Co.		
Park Falls.	Price.	1,492	21	31.8	.....	59*	20	6	28	35	0.34	.....	0.16	6.0	5	14	4	12	sw.	James H. Martin.
Portage.	Columbia.	809	23	38.4	+ 2.6	64	11	17	28	30	0.87	- 0.67	0.83	0.2	3	15	8	7	w.	Nekoosa-Edwards Pa. Co.		
Port Edwards.	Wood.	969	21	33.2	.....	64	10	9	28	38	0.83	.....	0.40	0						

TABLE 1.—Climatological data for November, 1912. District No. 5—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.								Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.		Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmeted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.						
					Highest.	Lowest.																			
<i>Iowa—Continued.</i>																									
Amana.	Iowa.	721	36	40.2	+ 6.4	63	11	14	28	31	1.70	- 0.03	0.88	T.	4	18	8	4	nw.	Conrad Schadt.					
Ames.	Story.	926	36	40.3	+ 6.2	70	10	15	2†	38	0.93	- 0.26	0.92	T.	2	18	8	4	sw.	Iowa State College.					
Baxter.	Jasper.	998	12	40.7	+ 3.4	70	4†	10	2†	37	0.68	- 0.65	0.68	T.	2	22	7	1	sw.	W. R. Vandike.					
Belle Plaine.	Benton.	886	23	40.8	+ 5.9	70	10	16	2†	33	1.57	- 0.15	1.11	T.	2	18	8	4	s.	O. Burrows.					
Belmond.	Wright.	5	27.5	65	10	12	23	37	0.79	0.78	0.1	0	3	24	0	6	nw.	Geo. P. Hardwick.				
Bloomfield.	Davis.	5	43.6	71	10	19	25	40	1.73	0.98	0.0	0	3	24	0	6	sw.	Albert Power.				
Bonaparte.	Van Buren.	21	43.1	+ 4.6	72	10†	19	2†	34	1.33	- 0.47	0.65	T.	3	20	2	8	s.	B. R. Vale.						
Boone.	Boone.	1,134	7	40.2	.....	70	10	10	2	41	0.56	.....	0.56	T.	1	20	5	6	nw.	C. F. Henning.			
Britt.	Hancock.	1,236	15	37.6	+ 4.0	67	10	13	24	35	1.04	- 0.07	1.02	0.1	3	15	10	5	s.	L. M. Goodman.					
Buckingham.	Tama.	12	.....	.....	.....	.....	.....	1.09	.....	0.36	1.00	0.0	T.	1	20	2	8	s.	J. S. Guynn.		
Burlington.	Des Moines.	544	16	42.2	+ 2.5	73	11	20	2†	39	1.94	+ 0.16	1.02	T.	3	23	2	5	s.	Max. E. Poppe, jr.					
Carroll.	Carroll.	1,265	22	37.9	+ 3.7	69	10	14	24	40	0.91	- 0.22	0.91	0	1	20	5	5	nw.	Mrs. Jos. J. Wolfe.					
Cedar Rapids.	Linn.	733	30	40.0	+ 4.1	69	11	16	28	39	1.36	- 0.04	0.74	T.	1	17	14	9	nw.	R. S. Toogood.					
Charles City.	Floyd.	1,015	21	37.4	+ 4.4	65	10	13	28	34	0.64	- 0.75	0.64	T.	1	28	0	3	s.	U. S. Weather Bureau.					
Clear Lake.	Cerro Gordo.	1,241	14	39.2	+ 5.1	66	11	12	28	38	1.06	- 0.78	0.81	T.	3	18	4	3	nw.	Oscar Stevens.					
Clinton.	Clinton.	593	45	39.9	+ 4.2	71	11	14	28	34	1.46	- 0.05	0.68	T.	3	23	4	3	s.	A. E. Reed.					
Columbus Junction.	Louisa.	595	11	42.6	+ 3.6	72	11	18	28	28	0.98	- 0.78	0.62	T.	4	9	15	6	sw.	J. B. Johnston.					
Davenport.	Scott.	580	41	42.3	+ 4.8	71	11	20	28	26	0.98	- 0.78	0.75	0.2	2	2	10	3	sw.	U. S. Weather Bureau.					
Decorah.	Winneshiek.	875	19	37.5	+ 4.0	62	10†	8	28	33	0.77	- 0.78	0.75	0.2	2	2	10	3	s.	F. H. Baker.					
Delaware.	Delaware.	1,083	21	39.1 ^b	+ 6.3	68	10	9 ^b	28	33 ^b	0.85	- 0.72	0.84	0.1	2	15	11	4	sw.	William Ball.					
Des Moines.	Polk.	861	34	43.0	+ 6.2	70	10	21	2	31	1.11	- 0.37	1.08	0.2	3	15	11	4	sw.	U. S. Weather Bureau.					
Dubuque.	Dubuque.	639	39	40.6	+ 4.6	68	11	17	28	29	1.51	- 0.30	1.33	0.1	5	7	15	8	nw.	George Phillips.					
Earlham.	Madison.	10	40.2	+ 2.4	70	10	13	25	39	1.37	+ 0.03	1.37	T.	2	23	3	4	nw.	Chas. Reinecke.						
Elkader.	Clayton.	727	33	37.5	+ 4.3	65	9†	10	28	34	0.75	- 0.90	0.75	T.	1	13	7	10	nw.	H. A. Moore.					
Elma.	Howard.	10	36.4	.....	63	10	8	28	36	0.42	.....	0.40	0.0	0	2	17	10	3	s.	A. O. Peterson.			
Estherville.	Emmet.	1,298	17	38.9	+ 5.6	72	10	14	28	40	0.50	- 0.74	0.50	T.	1	19	9	2	s.	R. M. McKenzie.					
Fairfield.	Fairfield.	28	42.4	+ 5.5	70	11	17	28	40	0.98	- 1.30	0.49	T.	4	24	0	6	s.	J. L. Wylie.						
Jefferson.	Jefferson.	26	37.0	+ 4.1	65	10	9	28	35	0.65	- 0.97	0.65	T.	1	15	10	5	sw.	F. L. Williams.						
Fayette.	Fayette.	1,003	23	37.0	+ 4.1	65	10	12	28	39	1.70	+ 0.47	1.70	T.	1	17	8	5	sw.	D. W. Brainard.					
Forest City.	Winnebago.	1,226	18	37.0	+ 4.6	65	11	12	28	39	1.70	+ 0.47	1.70	T.	1	17	8	5	sw.	J. B. Calderwood.					
Fort Dodge.	Webster.	1,126	12	39.4	+ 4.2	71	10	17	24	42	0.60	- 0.62	0.48	T.	2	17	10	3	nw.	D. G. Beardsley.					
Fort Madison.	Lee.	516	63	.....	.....	.....	.....	1.88	.....	0.26	1.23	0.0	T.	3	13	9	8	sw.	E. C. Grenelle.		
Gilman.	Marshall.	1,052	13	42.4	+ 6.4	70	10	14	28	40	0.68	- 0.72	0.63	T.	2	17	9	4	nw.	J. F. Peterson.					
Grand Meadow.	Clayton.	1,180	21	37.8	+ 4.8	63	10	12	28	31	0.56	- 1.00	0.51	0.2	3	9	15	6	nw.	R. E. Dudley.					
Grinnell.	Grinnell.	1,023	20	42.4	+ 6.4	70	10	16	2†	42	1.90	+ 0.33	0.83	T.	3	20	5	5	sw.	Prof. J. L. Tilton.					
Grundy Center.	Guthrie Center.	976	21	41.6	+ 7.6	68	10	14	28	34	1.00	- 0.22	0.75	T.	2	21	5	4	s.	Prof. A. G. Smith.					
Guthrie Center.	Guthrie.	1,077	17	41.2	+ 3.9	70	10	16	28	40	0.56	- 0.59	0.53	T.	2	22	7	1	nw.	J. B. Hall.					
Hampton.	Franklin.	1,155	22	40.2	+ 6.8	69	10	14	28	34	0.65	- 0.91	0.50	T.	2	18	8	3	nw.	J. F. Latimer.					
Humboldt.	Humboldt.	1,095	24	38.6	+ 4.8	70	10	11	27	40	0.71	- 0.66	0.71	0	1	26	3	1	nw.	J. F. Monk.					
Independence.	Buchanan.	921	48	38.7	+ 6.1	66	10	9	28	33	1.65	+ 0.33	1.37	T.	2	17	9	4	nw.	Miss L. A. McCready.					
Indianola.	Warren.	969	21	42.3	+ 4.0	68	10	19	2†	30	1.74	+ 0.32	1.39	T.	3	16	3	11	sw.	J. L. Wylie.					
Iowa City.	Johnson.	683	52	39.3	+ 3.6	70	11	14	28	40	1.11	- 1.15	0.58	T.	2	15	8	7	sw.	F. L. Williams.					
Iowa Falls.	Hardin.	1,170	19	37.2	+ 4.1	65	10	14	28	40	0.70	- 0.55	0.70	T.	2	20	3	7	nw.	D. W. Brainard.					
Jefferson.	Greene.	13	40.2	.....	70	10†	15	27	40	0.43	- 0.88	0.40	0.3	2	22	4	4	sw.	Ora M. Hall.					
Keokuk.	Lee.	547	41	44.4	+ 5.0	74	11	21	25	27	1.81	- 0.04	1.40	T.	4	15	11	4	s.	U. S. Weather Bureau.					
Keosauqua.	Van Buren.	644	20	41.1	+ 2.2	72	11	17	25†	41	1.48	- 0.02	0.83	T.	3	9	15	6	nw.	J. H. Landes.					
Knoxville.	Marion.	920	17	43.0	+ 5.5	70	10	20	25†	31	0.87	- 0.42	0.40	T.	3	19	4	7	nw.	Casey and Bellville.					
Lacona.	Warren.	13	.....	.....	.....	.....	.....	1.55	.....	0.08	1.15	0.2	0	5	7	18	5	nw.	J. B. Alter.		
Lansing.	Allamakee.	632	.....	.....	.....	.....	.....	0.68	.....	0.00	0.60	0.60	0	1	22	5	3	nw.	Chas. R. Serene.		
Le Claire.	Scott.	576	12	.....	.....	.....	.....	1.27	.....	0.20	0.66	0.1	4	2	13	12	5	sw.	Miss M. T. Disney.		
Marshalltown.	Marshall.	947	20	40.6	+ 4.6	73	10	12	25	43	0.73	- 0.56	0.70	T.	1	19	5	6	nw.	Jacob Eige.					
Mason City.	Cerro Gordo.	1,132	15	37.2	+ 4.4	65	10	12	28	36	0.62	- 1.02	0.62	T.	1	19	5	4	nw.	J. S. Mills.					
Monroe.	Jasper.	.....	.....	42.0	.....	70	10	17	2†	34	0.76	.....	0.44	0.2	3	22	4	4	sw.	J. A. Dibel.	
Mount Pleasant.	Henry.	729	31	42.0	+ 4.6	71	11	18	28	29	1.49	- 0.07	0.80	T.	3	18	8	4	sw.	J. W. Edwards.					
Muscatine.	Muscatine.	52	.....	.....	.....	.....	.....	1.32	.....	0.98	0.72	0.72	T.	3	2	27	1	nw.	William Molis.		
New Hampton.	Chickasaw.	1,189	15	38.6	+ 3.9	64	10	13	28	32	0.80	- 0.66	0.80	0	1	22	5	3	nw.	A. F. Keniman.					
Nora Springs.	Floyd.	1,064	40.0	.....	70	10	10	28	40	0.62	.....	0.62	T.	1	19	5	3	s.	Arthur Betts.				
Northwood.	Worth.	1,122	16	36.0	+ 2.8	61	11	11	28	34	1.80	+ 0.52	1.80	T.	1	15	14	1	nw.	Chas. H. Dwelle.					
Olin.	Jones.	760	14	40.0	+ 3.2	68	10†	11	28	33	1.80	+ 0.52	1.80	T.	3	16	11								

TABLE 1.—*Climatological data for November, 1912. District No. 5—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Data.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
<i>Indiana.</i>																					
Collegeville.	Jasper.	13	41.4	+ 0.4	72	11	18	28 ^a	32	3.52	+ 1.02	1.91	T.	4	13	10	7	w.	Otto Miller.		
Knox.	Starke.	716	7	41.6	70	11	19	28 ^a	29	3.73	-	1.28	1.9	9	17	5	8	w.	George H. Hall.		
Laporte.	Laporte.	810	16	40.2	+ 0.5	70	11	20	28 ^a	31	4.06	+ 1.28	1.35	1.1	9	15	1	14	nw.	W. R. R. Tatman.	
Plymouth.	Marshall.	790	9	40.9	-	70	11	19	28 ^a	29	3.45	-	1.09	1.1	8	11	2	8	sw.	Wm. M. Walton, Jr.	
South Bend.	St. Joseph.	726	19	41.3	+ 1.7	71	11	22	28	26	3.00	+ 0.18	1.03	1.0	10	12	9	9	sw.	J. W. Siders.	
<i>Illinois.</i>																					
Aledo.	Mercer.	738	12	42.3	+ 4.4	71	11	16	28	30	0.88	- 1.09	0.34	T.	3	17	7	6	s.	Henry H. Swaim.	
Alexander.	Morgan.	670	19	43.0	+ 0.7	73	10 ^f	17	28	33	1.56	- 0.49	0.62	T.	4	17	6	7	nw.	W. Holden.	
Antioch.	Lake.	861	11	39.0	+ 1.6	67	12	18	27 ^a	32	1.75	- 0.40	0.95	T.	3	12	8	10	sw.	Edward V. Bohl.	
Astoria.	Fulton.	650	13	43.1	+ 2.6	74	11	21	25 ^a	32	1.97	+ 0.06	1.00	T.	5	18	6	6	sw.	Mrs. L. M. Rice.	
Aurora.	Kane.	673	33	40.2	+ 2.8	71	11	15	28	31	1.70	- 0.73	1.05	T.	2	9	11	10	sw.	N. N. Stevenson.	
Bardstown.	Cass.	448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Prof. H. N. Pearce.		
Bernett.	Platt.	700	5	43.2 ^b	-	72 ^a	10 ^f	18 ^c	28	35 ^a	2.13	-	0.75	T.	4	25	0	5	s.	U. S. Weather Bureau.	
Bloomington.	McLean.	840	21	42.3	+ 1.7	71	10 ^f	17	28	32	0.27	- 0.27	0.85	T.	6	18	4	8	nw.	State Normal University.	
Cairo.	Alexander.	359	40	48.5	+ 1.6	75	10	26	28	37	0.62	- 3.40	0.36	T.	3	16	8	6	s.	Blackburn College.	
Carbondale.	Jackson.	412	7	46.8	-	76	10	21	25	39	1.90	-	1.37	T.	0	23	2	5	sw.	Hervey O. Jones.	
Carlinville.	Macoupin.	663	22	44.5	+ 1.8	75	10 ^f	19	28	35	3.06	+ 0.48	1.35	T.	4	18	8	4	s.	Charles S. Golton.	
Carlyle.	Clinton.	470	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Elmer G. Smith.		
Chester.	Randolph.	380	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	John Buck.		
Clinton.	Dewitt.	727	2	42.4	-	71	11	17	28	28	4.00	-	1.16	T.	5	19	4	7	nw.	Prof. J. H. Coonradt.	
Coatsburg.	Adams.	763	20	42.8	+ 1.7	73	11	19	25 ^a	29	2.06	- 0.00	0.00	T.	3	15	9	6	s.	H. U. Bardwell.	
Cobden.	Union.	656	29	47.6 ^b	+ 0.6	75	10	21	28	29 ^a	2.65	-	1.52	1.46	0	3	20	3	7	sw.	G. H. Knetzger.
Dakota.	Stephenson.	929	7	38.5	-	70	11	12	29	33	1.42	-	0.89	T.	4	8	12	10	s.	Edward O. Welch.	
Decatur.	Macon.	685	21	43.2	+ 1.9	72	10 ^f	18	28	30	2.09	-	0.43	1.05	T.	4	23	3	4	nw.	W. H. Morgan.
Dixon.	Lee.	725	22	40.1	+ 3.4	72	11	16	28	40	1.38	-	0.37	0.85	T.	4	17	5	8	sw.	Elgin Observatory.
Du Quoin.	Perry.	459	24	46.8	+ 1.5	75	10 ^f	21	28	38	1.54	-	1.27	1.30	T.	0	3	21	5	s.	Ewing College.
Dwight.	Livingston.	600	19	41.5	+ 2.1	70	11	17	28	31	2.16	-	0.36	0.83	T.	6	13	6	11	nw.	Charles S. Ogleye.
East St. Louis.	St. Clair.	481	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Abraham Wilson.		
Edwardsville.	Madison.	554	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Prof. F. U. White.		
Elgin.	Kane.	716	5	40.8 ^b	-	69 ^a	11	18 ^c	28	1.84	-	-	-	-	4	7	15	8	s.	R. C. Goodrich.	
Fairview.	Fulton.	733	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	H. W. Reinemann.		
Galva.	Henry.	852	20	41.2	+ 3.5	70	11	15	28	41	2.17	+ 0.34	1.11	T.	5	15	8	7	s.	Geo. F. Kneeland.	
Grafton.	Jersey.	422	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L. L. Eutenerer.		
Greenville.	Bond.	635	34	44.6	+ 2.0	75	10	20	28	37	1.78	-	1.53	0.95	T.	4	21	2	7	sw.	Dr. F. A. Powell.
Griggsville.	Pike.	650	27	45.0	+ 3.0	75	10	21	25 ^a	27 ^a	1.45	-	0.73	0.70	T.	4	18	7	5	s.	Ira L. Woodward.
Havana.	Mason.	475	20	42.4	+ 2.4	74	11	19	28	35	1.50	-	0.60	0.75	T.	4	21	3	6	sw.	F. M. Muhlig.
Henry.	Marshall.	500	24	41.9	+ 3.2	70	11	17	28	33	2.21	-	0.16	1.15	T.	5	18	6	6	s.	George Stevens.
Hillsboro.	Montgomery.	675	18	45.2	+ 1.4	75	11	21	28	31	1.35	-	0.72	0.65	T.	4	18	2	10	sw.	Prof. F. E. Sanford.
Joliet.	Will.	609	21	40.8	+ 2.1	72	11	19	30	33	1.67	-	0.60	0.89	T.	6	12	10	6	sw.	George Campbell.
Kishwaukee.	Winnebago.	730	24	39.8	+ 2.8	70	11	14	28	31	1.23	-	1.00	0.97	T.	4	11	13	6	s.	M. N. Wertz.
La Grange.	Cook.	657	20	41.0	+ 2.8	72	11	19	28	32	1.48	-	0.84	1.20	T.	5	21	7	2	sw.	U. S. Weather Bureau.
La Harpe.	Hancock.	698	33	42.6	+ 2.9	75 ^a	11	17	28	32 ^a	2.06	+ 0.10	1.59	1.5	T.	4	20	3	7	s.	Prof. C. S. Ogleye.
Lanark.	Carroll.	883	23	38.9	+ 2.9	70	11	8	28	34	1.78	-	0.24	1.20	T.	5	11	13	6	sw.	H. C. Foster.
La Salle.	La Salle.	536	7	41.8	+ 4.0	70	11	19	28	27	1.54	-	1.10	1.06	T.	0	5	11	13	nw.	State Normal University.
Lincoln.	Logan.	575	24	42.4	+ 1.3	74	10 ^f	18 ^a	28	36 ^a	2.32	+ 0.04	1.35	T.	4	20	5	5	sw.	J. F. Schmelzter.	
Loami.	Sangamon.	624	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Joseph H. Peltier.		
Macomb.	McDonough.	700	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	George Henrich.		
Manteno.	Kankakee.	711	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B. R. Morris.		
Martinton.	Iroquois.	633	25	41.4	+ 1.9	71	11	18	28	32	2.15	-	0.29	0.65	T.	5	12	8	10	sw.	Dr. J. C. Hutchison.
Mascoutah.	St. Clair.	425	22	45.4	+ 1.0	77 ^a	11	19	28	39 ^a	1.20	-	1.97	0.48	T.	3	18	9	3	nw.	E. G. Cryder.
Minonk.	Woodford.	745	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dr. A. C. McBride.		
Mountmouth.	Warren.	784	20	42.2	+ 2.3	72	11	17	28	31	1.98	+ 0.13	0.95	T.	5	19	5	6	sw.	S. A. Maxwell.	
Morris.	Grundy.	518	1	41.0 ^b	-	71 ^a	11	17	28	33 ^a	1.04	-	0.41	0.77	T.	5	14	3	13	s.	J. D. Lewis.
Morrison.	Whiteside.	685	18	40.8	+ 2.8	72	11	11	28	35	1.25	-	0.65	0.77	T.	4	21	5	4	sw.	Theodore P. Stelle.
Morrisonville.	Christian.	638	13	43.5 ^b	+ 0.7	72	10 ^f	20 ^c	28	31 ^a	1.73	-	0.35	0.74	T.	5	19	5	6	s.	H. M. Potter.
Mount Vernon.	Jefferson.	511	18	43.7	- 1.5	76	11	18	26	37	2.46	-	0.44	1.25	T.	0	3	21	2	nw.	Samuel Ray.
Nashville.	Washington.	503	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Miss Maude M. Harris.		
Oregon.	Ogle.	702	3	40.2	-	71	11	14	28	38	1.48	-	1.24	0.5	T.	4	11	5	14	sw.	Dr. G. N. Gilbert.
Ottawa.	La Salle.	500	26	42.8 ^b	+ 3.7	71	11	19	28	31	2.02	-	0.34	1.21	T.	4	14	3	13	s.	A. C. McBride.
Pana.	Christian.	692	26	43.9	+ 2.0	74	11	20	28	41	1.85	-	1.71	1.10	T.	4	21	6	3	sw.	U. S. Weather Bureau.
Paw Paw.	Lee.	930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	George Butterworth.		
Pearo.	Peoria.	609	56	41.8	+ 4.3	72	11	20	28	27	1.56	-	1.08	0.88	T.	6	10	11	9	s.	Fred J. Brinkett.
Pontiac.	Livingston.	546	10	42.4	+ 1.5	71	11	18	28	35	2.25	+ 0.20	0.72	T.	6	6	11	13	sw.	John West James.	
Quincy.	Adams.	451	6	43.4	-	73	10 ^f	22	28	37	2.72	-	2.15	0	T.	6	8	10	12	s.	R. E. Bradbury.
Riley.	McHenry.	956	53	38.6	+ 4.1	68	11	16	28	32 ^a	1.24</										

TABLE 2.—*Daily precipitation for November, 1912. District No. 5. Upper Mississippi Valley.*

TABLE 2.—*Daily precipitation for November, 1912. District No. 5—Continued.*

TABLE 2.—*Daily precipitation for November, 1912. District No. 5—Continued.*

TABLE 2.—*Daily precipitation for November, 1912. District No. 5—Continued.*

* Precipitation included in that of the next measurement.

[†] Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.
T Precipitation is less than 0.01 inch rain or melted snow.

T. Precipitation is less than 0.01 inch rain or melted snow

TABLE 3.—*Maximum and minimum temperatures at selected stations for November, 1912. District No. 5.*

Date.	North Dakota.								Minnesota.												St. Paul.		Winnibigoshish.			
	Bottineau.		Devils Lake.		Minot.		Pembina.		Collegeville.		Crookston.		Grand Meadow.		Montevideo.		Moorhead.		New Ulm.		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	30	23	30	17	33	23	32	20	32	25	29	21	41	20	60	17	28	17	39	27	35	17	34	23	38	22
2.....	33	11	37	8	40	17	36	22	40	16	37	18	45	13	58	32	42	14	49	16	37	20	44	20	37	20
3.....	44	14	38	22	45	19	32	20	54	26	45	28	54	26	50	34	54	24	52	16	50	15	56	29	48	22
4.....	34	21	32	21	36	22	30	18	52	38	34	29	55	37	56	30	39	27	55	33	50	25	56	41	44	22
5.....	30	24	.....	28	34	22	32	20	49	28	37	28	60	32	65	23	37	23	50	35	44	20	54	34	38	30
6.....	42	23	.....	44	28	38	22	54	25	47	28	56	24	65	36	55	26	49	24	49	19	55	30	48	26	
7.....	39	23	.....	38	30	42	24	54	41	50	32	57	29	64	35	55	30	63	24	54	34	59	35	55	32	
8.....	43	13	.....	41	25	40	26	47	32	40	32	50	32	51	34	46	24	48	35	50	15	45	34	58	28	
9.....	40	23	.....	50	25	42	28	56	30	47	28	55	22	61	36	53	24	56	24	49	28	58	25	48	24	
10.....	42	24	.....	35	26	44	26	60	36	51	32	62	33	74	35	64	31	67	29	61	29	60	39	55	32	
11.....	33	25	.....	33	25	42	28	55	36	40	29	58	46	49	33	40	28	53	38	50	28	51	40	60	31	
12.....	30	24	.....	46	25	38	26	36	30	32	27	49	33	39	30	34	19	39	27	40	28	41	33	44	30	
13.....	32	20	.....	31	24	34	24	36	23	33	20	38	30	34	14	32	16	38	18	44	30	37	31	35	22	
14.....	37	27	.....	46	26	32	20	40	18	33	27	41	22	40	29	32	24	43	19	34	9	40	22	38	15	
15.....	40	25	.....	45	25	34	18	41	21	35	25	44	21	45	23	34	24	45	22	36	9	45	25	42	18	
16.....	42	21	.....	43	24	38	16	42	27	37	26	45	28	48	30	44	26	46	21	40	27	43	31	40	24	
17.....	47	20	.....	54	24	34	18	49	28	42	23	51	26	57	28	48	23	57	25	50	17	50	28	45	25	
18.....	50	23	.....	53	26	32	15	57	30	55	28	55	27	67	27	57	24	62	25	54	15	56	28	56	24	
19.....	48	24	47	48	30	34	10	59	33	50	23	59	30	66	29	59	22	65	27	55	24	58	35	57	30	
20.....	39	24	40	31	41	33	36	12	54	35	47	32	54	33	59	30	50	28	67	29	52	22	55	38	52	
21.....	44	18	41	26	45	27	32	10	47	27	43	26	48	28	53	25	45	23	52	28	47	20	46	31	45	30
22.....	36	21	36	25	40	28	24	12	46	30	37	27	48	26	52	25	40	26	51	26	42	22	45	31	40	29
23.....	22	18	25	15	32	20	28	16	41	23	25	23	43	24	34	26	29	17	32	26	34	21	38	24	42	25
24.....	28	7	30	17	36	11	30	10	32	19	28	21	35	21	33	25	26	20	30	18	32	20	34	22	43	28
25.....	34	15	31	18	40	20	32	12	32	18	34	21	34	16	36	20	36	24	30	18	31	9	31	19	34	20
Mns...	36.8	19.1	33.9	19.9	40.7	23.1	31.9	16.9	44.9	26.4	38.6	25.1	47.5	25.4	50.3	26.3	42.1	22.8	47.9	24.2	42.9	20.1	45.8	28.2	43.4	23.7
Wisconsin.																										
Date.	Eau Claire.		Hancock.		La Crosse.		Madison.		Prentice.		Wausau.		Algona.		Cedar Rapids.		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Eau Claire.		Hancock.		La Crosse.		Madison.		Prentice.		Wausau.		Algona.		Cedar Rapids.		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	37	26	40	23	36	21	35	24	38	22	36	25	36	22	37	35	35	18	40	27	36	26	38	27	40	31
2.....	39	17	37	15	42	18	36	20	33	10	36	17	51	15	44	20	47	16	42	22	50	31	41	21	45	23
3.....	57	20	52	18	55	28	49	27	50	18	50	23	57	29	57	20	53	33	59	33	53	30	55	31		
4.....	54	41	52	36	56	40	51	36	50	27	48	32	58	39	56	30	57	37	59	42	55	41	62	44		
5.....	56	30	53	35	59	35	55	38	48	30	54	32	58	38	56	40	58	36	56	43	60	42	55	50		
6.....	52	22	55	34	52	31	48	40	49	19	51	28	55	25	54	41	55	30	53	38	58	38	54	35	56	38
7.....	53	25	48	28	55	28	50	29	50	25	49	25	60	36	57	30	59	30	56	31	62	36	59	29	60	33
8.....	48	37	46	35	49	35	49	38	50	26	45	36	54	34	54	31	52	28	56	38	58	40	52	49	53	
9.....	48	27	41	26	52	26	45	31	40	24	40	27	61	24	55	28	57	23	57	32	64	33	52	32	61	
10.....	62	35	61	34	62	36	60	38	61	31	56	32	66	37	68	29	65	36	68	49	70	50	66	40	73	52
11.....	57	40	64	45	65	50	64	48	61	32	58	42	68	44	69	43	62	42	71	54	66	54	68	52	74	57
12.....	50	33	60	37	53	37	59	33	54	35	54	36	45	34	62	50	48	30	67	44	62	36	62	42	73	49
13.....	39	32	37	33	40	32	38	33	38	.29	39	32	43	25	41	38	39	30	44	36	50	33	42	34	49	39
14.....	41	23	39	26	41	25	40	29	40	11	36	26	37	26	42	30	41	24	45	30	42	31	43	28	45	33
15.....	44	17	44	18	45	21	42	27	40	29	41	16	45	21	46	24	45	21	47	27	50	27	46	23	50	25
16.....	45	32	44	31	46	36	45	32	41	26	39	30	47	24	46	28	49	34	53	34	50	36	48	35	50	32
17.....	50	22	48	24	53	25	48	29	44	20	46	23	52	25	51	27	54	28	52	28	59	31	55	28	62	
18.....	54	23	52	24	55	28	53	32	48	26	49	25	55	40	55	27	56	27	58	35	61	35	62	36	66	
19.....	55	28	54	31	60	30	58	39	54	28	54	27	57	31	59	29	61	28	61	37	62	32	63	40		
20.....	54	29	55	33	57	35	55	36	55	34	54	32	55	32	66	33	58	34	67	41	65	41	64	36	70	
21.....	45	32	48	33	48	34	49																			

TABLE 3.—*Maximum and minimum temperatures for November, 1912. District No. 5—Continued.*

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle.		Monmouth.		Mount Vernon. §§		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.	42	34	41	32	47	41	46	35	40	30	43	31	46	36	40	33	42	34	40	26
2.	47	25	33	28	45	32	45	24	37	24	40	20	43	28	39	23	40	27	39	19
3.	57	31	46	20	52	33	55	25	51	30	53	24	54	24	53	29	51	29	42	26
4.	66	46	53	34	62	42	62	25	61	40	62	39	60	34	63	40	65	40	55	37
5.	57	48	58	39	65	55	57	46	56	43	54	47	68	42	55	44	56	45	55	36
6.	56	36	55	40	64	53	57	49	55	36	54	41	62	42	55	38	56	42	53	34
7.	59	31	55	38	61	46	59	33	55	32	54	29	58	40	55	29	54	36	50	28
8.	61	40	52	34	67	43	64	38	55	41	54	39	65	37	57	37	58	41	46	32
9.	62	31	49	36	63	40	62	33	51	33	57	26	62	33	54	29	56	36	53	25
10.	75	54	65	38	75	48	75	45	68	45	70	47	70	33	71	46	72	48	66	40
11.	75	57	70	43	73	54	74	50	70	53	72	49	76	45	72	52	73	52	76	50
12.	73	47	65	41	70	54	70	54	67	52	69	44	67	50	68	51	69	49	64	44
13.	52	38	60	35	54	44	66	39	52	36	54	37	48	44	51	38	49	39	44	32
14.	45	26	56	29	50	39	47	33	43	30	45	30	45	32	44	29	44	34	42	28
15.	51	23	42	24	50	32	52	26	45	25	48	21	51	23	46	23	46	28	43	22
16.	50	34	41	36	58	36	56	29	46	31	53	32	58	23	48	31	45	32	42	29
17.	54	27	46	24	53	36	53	28	49	29	51	36	52	28	50	26	51	30	48	26
18.	61	34	50	30	59	33	60	29	56	33	59	32	59	24	57	30	56	32	54	28
19.	63	40	60	32	69	43	65	38	61	37	61	36	63	26	60	36	60	39	61	30
20.	68	47	61	30	68	46	69	39	65	38	67	37	67	30	67	40	67	42	61	36
21.	54	34	58	36	65	44	64	39	54	35	56	36	70	34	53	32	54	39	56	35
22.	58	30	52	25	60	42	59	31	52	34	54	31	58	31	54	29	56	31	53	30
23.	50	30	42	33	53	39	48	37	47	27	47	34	50	32	43	31	45	31	44	31
24.	38	25	37	26	40	31	40	26	37	26	39	25	39	26	38	26	38	26	35	25
25.	41	21	37	25	42	28	38	22	36	26	35	21	38	23	36	22	37	23	34	23
26.	43	29	36	30	48	32	45	27	35	28	40	24	42	18	39	26	41	29	34	23
27.	37	24	33	23	43	31	36	24	34	25	35	25	45	22	34	23	34	25	32	23
28.	48	23	35	20	45	26	45	20	42	19	45	17	48	28	43	20	43	22	39	13
29.	50	29	42	30	55	32	53	30	48	29	50	30	53	32	48	30	47	32	47	27
30.	53	25	48	20	55	46	48	30	50	24	47	22	50	34	49	24	51	30	49	23
Means.....	54.9	34.0	49.3	31.0	57.0	40.0	55.7	33.4	50.6	33.0	52.3	32.1	55.6	31.8	51.4	32.2	51.9	34.8	48.6	29.4

■, □, △, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.